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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/547,333	09/01/2005	Teruo Mori	125221	3149
25944	7590	08/03/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			KWOK, HELEN C	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/547,333

Applicant(s)

MORI ET AL.

Examiner

Helen C. Kwok

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date September 1, 2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 6, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-020140 (Kobayashi et al.) or JP 2001-174263 (Sato) or JP 09-196686 (Kawamura et al.).

With regards to claims 1-2, 4 and 6, the references, Kobayashi et al., Sato, Kawamura et al., disclose a gyro sensor comprising a magnetostrictive member made of a magnetostrictive element; a drive coil for vibrating the magnetostrictive member at a resonant frequency; detecting means includes a detection coil surrounding the magnetostrictive member for detecting changes in magnetic permeability or remnant magnetization of the magnetostrictive member. (See, Figure 1 of Kobayashi et al.; Figures 1-10 of Sato; Figure 1-5 of Kawamura et al.).

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With regards to claims 8 and 12, the claims are commensurate in scope with the above claims and are rejected for the same reasons as set forth above.

4. Claims 1-4, 6-8, 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-260492 (Shimizu et al.).

With regards to claims 1-4 and 6, Shimizu et al. discloses a gyro sensor comprising, as illustrated in Figures 1-3, a magnetostrictive member made of a magnetostrictive element; a drive coil for vibrating the magnetostrictive member at a resonant frequency; detecting means includes a detection coil or a magnetic resistive element surrounding the magnetostrictive member for detecting changes in magnetic permeability or remnant magnetization of the magnetostrictive member.

With regards to claims 7-8, 12-13 and 15, the claims are commensurate in scope with the above claims and are rejected for the same reasons as set forth above.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 3, 5, 7, 9, 10-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over either JP 07-020140 (Kobayashi et al.) or JP 2001-174263 (Sato) or JP 09-196686 (Kawamura et al.) in view of JP 07-260492 (Shimizu et al.).

With regards to claim 3, the references, Kobayashi et al., Sato, Kawamura et al., does not explicitly teach the detecting means includes a magnetic resistance element. Shimizu et al. discloses an angular velocity detector comprising, as illustrated in Figures 1-3, the detecting means can be a magnetic resistance element, hall device or a pick up coil. (See, section [0026] of translation). It would have been obvious to a person of ordinary skill in the art at the time of invention to have readily recognize the advantages and desirability of employing a detecting means including a magnetic resistance element since it is well known in the art that a pick up coil or a hall device is replaceable with a magnetic sensor such as a magnetic resistive element without changing the operation of the device, namely to detect the change in magnetic permeability of the magnetostrictive member.

With regards to claim 5, attaching a bias magnet at one end of the magnetostrictive member and attaching a soft magnetic member with a drive coil at another end of the magnetostrictive member are not described in any of the references. However, it is well known in the art at the time of invention that this arrangement appears to be obvious to a person skilled in the art.

With regards to claims 7,9,10-11 and 13-15, the claims are commensurate in scope with the above claims and are rejected for the same reasons as set forth above.

7. Claims 5, 9-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-260492 (Shimizu et al.).

With regards to claim 5, attaching a bias magnet at one end of the magnetostrictive member and attaching a soft magnetic member with a drive coil at another end of the magnetostrictive member are not suggested in Shimizu et al. However, it is well known in the art at the time of invention that this arrangement appears to be obvious to a person skilled in the art.

With regard to claims 9-11 and 14, the claims are commensurate in scope with the above claims and are rejected for the same reasons as set forth above.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to a gyro sensor having a magnetostrictive element.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen C. Kwok whose telephone number is (571) 272-2197. The examiner can normally be reached on 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Helen C. Kwok
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hck
July 27, 2006